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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,519	09/13/2001	Yu Wang	040489-0177	2614

22428 7590 03/11/2005

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EXAMINER	
DONOVAN, LINCOLN D	
ART UNIT	**PAPER NUMBER**
2832	

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/682,519	WANG ET AL.	
	Examiner	Art Unit	
	Lincoln Donovan	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22,39 and 40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,39 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103[a] which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 7-11, 14, 19-21 and 39, are rejected under 35 U.S.C. 103(a) as being unpatentable over Laskaris et al. [US 6,198,371] in view of Kim [US 6,336,794].

Laskaris et al. disclose an open magnet assembly with a floor mount comprising:

- a first assembly [12] mounted about a first longitudinally-extending and generally-vertically-aligned axis including:

- at least one superconducting main coil [24] positioned around the axis; and

- a vacuum enclosure [26] enclosing the at least one superconductive main coil;

- a second assembly [14] mounted about a second longitudinally-extending and generally-vertically-aligned axis coaxially aligned with the first axis and spaced longitudinally apart from and disposed below the first assembly, the second assembly including:

- at least one superconducting main coil [30] positioned around the axis; and

- a vacuum enclosure [26] enclosing the at least one superconductive main coil;

- at least one support beam [16, 18] external to the flrst and second vacuum enclosures having

a first end attached to the first assembly and a second end attached to the second assembly; and

- a support apparatus [20] supporting both assemblies from a floor [42].

Laskaris et al. discloses the instant claimed invention except for the support apparatus providing vibration isolation and the specific isolation system used.

Kim discloses an vibration isolation system [figure 1] with a plurality of isolators [40] for a piece of machinery [10].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a vibration isolation system for the support structure of Laskaris et al., as suggested by Kim, for the purpose of reducing vibration of the open magnet assembly.

Kim discloses the vibration isolation system mounted on a floor assembly [50] supporting a support member [30] supporting the machinery away from the floor structure [figure 1].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the isolation support mounting design of Kim in Laskaris et al., as modified, for the purpose of isolating the device from the floor structure.

The specific footprint of the isolation system and its use as a retrofit would have been an obvious design considerations for the purpose of reducing space usage and costs.

Claims 2-4, 12-13, l 5-17 and 22 are rejected under 35 U.S.C. 103[a] as being unpatentable over Laskaris et al., as modified, as applied to claims 1, 7-11, 14 above, and further in view of Ohsaki [US 6,202,492].

Laskaris et al., as modified, discloses the instant claimed invention except for the isolators being adjustable and actively pneumatically controlled.

Ohsaki discloses a surface [6] being supported by adjustable actively controlled pneumatic isolators [4a-d, column 5, lines 1-12].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to the isolator design of Ohsaki for the isolators of Laskaris et al., as modised, for the purpose of accommodating variations in the operating environment.

The specific frequencies, Q-factors, bandwidth, etc. of the control would have been obvious design considerations based on the specific application and environment of use.

Claims 5-6 and 18 are rejected under 35 U.S.C. 103[a] as being unpatentable over Laskaris et al., as modified, as applied to claims 1 and 14 above, and further in view of Braun [US 4,781,363].

Laskaris et al., as modified, discloses the instant claimed invention except for the use of balance weights on the isolators.

Braun discloses the use of balance weights [9] mounted on an isolator.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use balance weights on the isolators of Laskaris et al., as modifed, for the purpose of accommodating unexpected balance shifts.

lt would have been obvious to have the amount of weight applied be adjustable for the purpose of accommodating varying operating environments.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laskaris et al., as modified, as applied to claim 39 above, and further in view of Aoki et al. [US 2002/0190827].

Laskaris et al., as modified, disclose everything claimed except the first and second magnets being supported by two support members not diametrically aligned to a diameter line of the first and second assemblies.

Aoki et al. discloses a magnetic field generator having first and second magnets [14a, 14b] supported by only two support members not diametrically aligned to a diameter line of the first and second assemblies [figure 1].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the support design of Aoki et al. for the magnet system of Laskaris et al., as modified, in order to facilitate access to the interior of the device.

Response to Arguments

Applicant's arguments with respect to claims 1-22 and 39-40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lincoln Donovan whose telephone number is 571-272-1988. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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